AMENDMENTS TO THE CLAIMS

- 1. (Currently Amended) A semiconductor production reactor, comprising a reactor comprising at least one interior chamber surface primed the at least one interior chamber surface comprising a first material and a substance incorporated in the first material, the substance [[to]] balances receipt of a to-be-controlled material.
- (Currently Amended) The reactor of claim 1, wherein the primed interior chamber surface
 minimizes volatile compound or complex formation upon a to-be-controlled material
 contacting the interior chamber surface.
- (Currently Amended) The reactor of claim 1, wherein the surface is primed to blocks an
 etching material.
- (Original) The reactor of claim 3, wherein the blocked etching material is selected from the group consisting of fluorine, chlorine, oxygen, argon, bromine, fluorocarbons and chlorofluorocarbons.
- (Currently Amended) The chamber of claim 1, wherein the primed interior surface includes a substance [[that]] binds with silicon and minimizes Si-F bonding.
- 6. (Currently Amended) The chamber of claim 1, wherein the primed interior surface includes a substance [[that]] minimizes formation of a volatile compound or complex.
- 7. (Currently Amended) The chamber of claim 1, wherein the primed interior surface includes a substance [[that]] minimizes SiF₄ formation.

BUR9-2001-0077-US1 09/682,978

- 8. (Currently Amended) The chamber of claim 1, wherein the chamber is silicon-based or silicon carbide based comprises silicon or silicon carbide.
- 9. (Currently Amended) The chamber of claim 1, wherein the primed surface includes an equilibrium-shifting substance for impeding impedes reaction between the chamber surface and the to-be-controlled material.
- (Currently Amended) The chamber of claim 1, wherein the primed chamber surface includes cobalt-silicon bonds and/or cobalt-fluorine bonds.
- 11. (Currently Amended) The chamber of claim 1, comprising a cleaned and primed substance-containing chamber surface.
- 12. (Currently Amended) The chamber of claim 1, including at least about 8 atom % cobalt in the primed surface at least one interior chamber surface.
- 13. (Currently Amended) A method of seasoning a reactor chamber, comprising at least the steps of:

providing a reactor chamber having at least one interior surface, the at least one interior surface comprising a first material;

priming incorporating a substance in the first material of the interior surface of the reactor chamber with , the substance comprising a seasoning element or compound containing seasoning atoms or molecules that when combined with the chamber surface and/or a material to be used in the reactor chamber are relatively less volatile than a combination, alone without the seasoning atoms or molecules, of the chamber surface and the material to be used in the reactor chamber.

BUR9-2001-0077-US1 09/682,978

- 14. (Currently Amended) The method of claim 13, wherein the surface-priming step of incorporating a substance includes placing the seasoning element or compound in solid form in the reaction chamber.
- 15. (Original) The method of claim 13, wherein a cobalt-containing solid is placed in the chamber.
- 16. (Original) The method of claim 13, wherein the seasoning element or compound is selected from the group consisting of cobalt-based elements or compounds, aluminumbased elements or compounds, copper-based elements or compounds, titanium-based elements or compounds and silicon-based elements or compounds.
- 17. (Original) The seasoning method of claim 13, including periodic cleaning of the chamber.
- 18. (Currently Amended) An etching method, comprising:

providing a reactor chamber having at least one interior surface comprising a first material;

priming incorporating a substance in the first material of the interior surface of the reactor to minimize an undesirable reaction at the surface;

producing an etched product in the primed reactor chamber.

- 19. (Original) The etching method of claim 18, wherein the undesirable reaction is formation of a volatile compound or complex.
- 20. (Original) The etching method of claim 18, wherein the undesirable reaction is formation of SiF₄.

BUR9-2001-0077-US1 09/682,978

- 21. (Currently Amended) The method of claim 18, wherein <u>after the step of incorporating the substance</u>, the interior surface after priming includes Si-Co and/or Co-F bonds.
- 22. (Original) The method of claim 18, including producing an oxide or oxynitride film or etching via holes.
- 23. (Original) The method of claim 18, including periodically cleaning the chamber.
- 24. (Currently Amended) A method of controlling fluorine in production processes in a reactor, comprising at least the steps of:

priming incorporating a substance in a first material of an interior surface of the reaction chamber with , the substance comprising seasoning atoms or molecules that reduce the formation of volatile compounds and complexes when fluorine encounters the surface; and

conducting a production process in the reactor in which fluorine is present in the reaction chamber.

- 25. (Original) The method of claim 24, wherein the production process includes etching.
- 26. (Original) The method of claim 24, further including periodic cleaning of the reaction chamber.

BUR9-2001-0077-USI 09/682,978